

SEQUENCE LISTING

<110> Cao, Liangxian
 Trifillis, Panayiota

<120> METHODS FOR IDENTIFYING COMPOUNDS THAT MODULATE UNTRANSLATED
 REGION-DEPENDENT GENE EXPRESSION AND METHODS OF USING SAME

<130> 10589-012-999

<140> US 10/543,033
 <141> 2004-01-21 (371c date)

<150> PCT/US2004/001643
 <151> 2004-01-21

<150> 60/441,637
 <151> 2003-01-21

<160> 90

<170> PatentIn version 3.2

<210> 1
 <211> 14
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: consensus G-quartet element from
 synthetic sequences

<220>
 <221> misc_feature
 <222> 3, 7, 8, 11
 <223> n = a, t, c, or g

<220>
 <221> misc_feature
 <222> (7)..(8)
 <223> This represents one form of the sequence as described, other forms
 described may have up to five nucleotides in this variable region

<400> 1
 ggntggnggg ntgg

14

<210> 2
 <211> 14
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic G-quartet
 oligonucleotide

<220>
 <221> misc_feature
 <222> 3, 4, 7, 8, 11, 12
 <223> n = a, t, g or c

<220>
 <221> misc_feature
 <222> 3, 4, 7, 8, 11, 12
 <223> This represents one form of the sequence as described, other forms described have longer variable regions, typical is 2 - 10 nucleotides

<400> 2
 ggnnggnngg nngg 14

<210> 3
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Antisense minus uORF NcoI primer

<400> 3
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 g 61

<210> 4
 <211> 19
 <212> RNA
 <213> Oryctolagus cuniculus

<220>
 <223> subunit of 15-LOX-DICE

<400> 4
 ccccrccuc uuccccaag 19

<210> 5
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 5
 gcagaggacc agctaagagg gagagaagca actacagacc cccctgaaa acaaccctca 60
 gacgccacat cccctgacaa gctgccaggc aggtttctctt cctctcacat actgaccac 120
 ggetccaccc tctctcccct ggaaaggaca cc 152

<210> 6
 <211> 792
 <212> DNA
 <213> Homo sapiens

<400> 6
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 ggaacccaag cttagaactt taagcaacaa gaccaccact tcgaaacctg ggattcagga 180
 atgtgtggcc tgcacagtga attgctggca accactaaga attcaaaactg gggcctccag 240
 aactcactgg ggcttacagc tttgatccct gacatctgga atctggagac cagggagcct 300
 ttggttctgg ccagaatgct gcaggacttg agaagacctc acctagaaat tgacacaagt 360

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ttattattta	tttattttaca	gatgaatgta	tttattttggg	agaccggggg	atcctggggg	540
acccaatgta	ggagctgcct	tggttcagac	atgttttccg	tgaaaacgga	gctgaacaat	600
aggctgttcc	catgtagccc	cctggcctct	gtgccttctt	ttgattatgt	tttttaaaat	660
atttatctga	ttaagttgtc	taaacaatgc	tgatttggtg	accaactgtc	actcattgct	720
gagcctctgc	tccccagggg	agttgtgtct	gtaatcgccc	tactattcag	tggcgagaaa	780
taaagtttgc	tt					792

<210> 7
 <211> 21
 <212> RNA
 <213> Homo sapiens

<220>
 <223> Group I AU-Rich element(ARE) cluster of 3'untranslated region

<400> 7
 auuuauuuau uuauuuauuu a 21

<210> 8
 <211> 40
 <212> DNA
 <213> Homo sapiens

<400> 8
 kctggaggat gtggctgcag agcctgctgc tcttgggcac 40

<210> 9
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 9						
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gaccaagggg	tgggccacag	ccatgggtggg	agtggcctgg	acctgccctg	ggccacactg	120
acctgatac	aggcatggca	gaagaatggg	aatattttat	actgacagaa	atcagtaata	180
tttatatatt	tatattttta	aaatattttat	ttattttattt	atttaagttc	atattccata	240
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<210> 10
 <211> 7008
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Expression Vector pCMRI

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cgagcaaaaat	ttaagctaca	acaaggcaag	gcttgaccga	caattgcatg	aagaatctgc	180
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gattattgac	tagttattaa	tagtaatcaa	ttacgggggc	attagttcat	agcccatata	300
tggagttccg	cgttacataa	cttacggtaa	atggcccgcg	tggctgaccg	ccaacgacc	360
ccgcgccatt	gacgtcaata	atgacgtatg	ttcccatagt	aacgcccaata	gggactttcc	420
attgacgtca	atgggtggag	tatttacggg	aaactgcccc	cttggcagta	catcaagtgt	480

atcatatgcc	aagtaacgcc	cctattgacg	tcaatgacgg	taaatggccc	gcctggcatt	540
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cgcgcgaggg	taccatggga	tccgaagacg	ccaaaaacat	aaagaaaggc	ccggcgccat	900
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ccctggttcc	tggaaacaatt	gcttttacag	atgcacatat	cgagggtgaac	atcacgtacg	1020
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caaatcacag	aatcgctcgt	tgcagtgaag	actctcttca	attcttttatg	ccgggtgttg	1140
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<210> 11
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 <212> DNA
 <213> Homo sapiens

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<210> 12
 <211> 307

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<212> DNA
<213> Homo sapiens

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taaaactata aatatggatc ttttatgatt ctttttgtaa gccctagggg ctctaaaatg      180
gtttacctta tttatcccaa aaatatattat tattatgttg aatgttaaata atagtatcta      240
tgtagattgg ttagtaaaac tatttaataa atttgataaa tataaaaaaa aaaaacaaaa      300
aaaaaa                                           307

<210> 13
<211> 15
<212> RNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)..(15)
<223> n = a, u, g or c

<400> 13
nauuuauuua uuuan                                           15

<210> 14
<211> 62
<212> DNA
<213> Homo sapiens

<400> 14
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ct                                           62

<210> 15
<211> 427
<212> DNA
<213> Homo sapiens

<400> 15
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acactatddd aattatddd aatttattaa tatttaaata tgtgaagctg agttaattta      180
tgtaagtcac atttatattd ttaagaagta ccacttgaaa cattttatgt attagttdtg      240
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tcttggaag tgtaggctta cctcaaataa atggctaact tatacatatt tttaaagaaa      360
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aaaattc                                           427

<210> 16
<211> 11693
<212> DNA
<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Expression Vector pCMR2

<400> 16

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c caacgaccc	cgcgccattg	acgtcaataa	tgacgtatgt	tcccatagta	acgccaatag	180
g gacttttcca	ttgacgtcaa	tgggtggagt	atttacggta	aactgcccac	ttggcagtac	240
a tcaagtgt	tcatatgcca	agtccgcccc	ctattgacgt	caatgacggg	aaatggcccc	300
c ctggcatta	tgcccagtac	atgaccttac	gggactttcc	tacttggcag	tacatctacg	360
t attagtc	cgctattacc	atgggtgatgc	ggttttggca	gtacaccaat	gggcgtggat	420
a gcgggtttga	ctcacgggga	tttccaagtc	tccaccccat	tgacgtcaat	gggagtttgt	480
t ttggcacca	aaatcaacgg	gactttccaa	aatgtcgtaa	taaccccgcc	ccgttgacgc	540
a aaatgggcgg	taggcgtgta	cggtgggagg	tctatataag	cagagctcgt	ttagtgaacc	600
g taagctttc	ggcgcgccac	ggtaccatgg	gatccgaaga	cgccaaaaac	ataaagaaag	660
g gcccggcgcc	attctatcct	ctagaggatg	gaaccgctgg	agagcaactg	cataaggcta	720
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a catcacgta	cgcggaatac	ttcgaaatgt	ccgttcgggt	ggcagaagct	atgaaacgat	840
a tgggctgaa	tacaaatcac	agaatcgctg	tatgcagtga	aaactctctt	caattcttta	900
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<210> 40
<211> 751
<212> DNA
<213> Homo sapiens

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<222> (535)..(734)
<223> n = a, t, g or c

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<210> 41
<211> 229
<212> DNA
<213> Homo sapiens

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<400> 41
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cggagagggg cgcacgcgc ccgtggcgc agatttgaaa gaagccgaca ctaaaccacc 180
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<210> 42
<211> 233
<212> DNA
<213> Homo sapiens

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<400> 42
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<210> 43

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<211> 349
 <212> DNA
 <213> Homo sapiens

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<210> 44
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 44
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 aaaagccaata ttacaagctg ccatcccttc cccgtttcag tggacctgt ggccagggtgc 240
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<210> 45
 <211> 1700
 <212> DNA
 <213> Homo sapiens

<400> 45
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 cccacaactt gtacaacatt ggtgcttcc gcaagggtca cagaactatt tgatacgaac 300
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<210> 46

<211> 2419

<212> DNA

<213> Homo sapiens

<400> 46

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<211> 297

<212> DNA

<213> Homo sapiens

<400> 47

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 <212> DNA
 <213> Homo sapiens

<400> 48						
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 <212> DNA
 <213> Homo sapiens

<400> 49						
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 <211> 3293
 <212> DNA
 <213> Homo sapiens

<400> 50						
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 <213> Homo sapiens

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 <211> 706
 <212> DNA
 <213> Homo sapiens

<400> 52
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<210> 61
 <211> 238
 <212> DNA
 <213> Homo sapiens

<400> 61						
ccattgtgct	ggaaaggcgc	gcaacggcgc	cgacggcggc	gacccaccgc	cgcatcctgc	60
caggcctcgc	cgccagccgc	cccacgcgc	cccgcgcgc	gcgcgccgac	cctttcttcg	120
cgccccgcgc	cctcgccgc	ccaggccccc	ttgcgggcca	cccgcaggc	cccgcgcgc	180
cccgcgcgc	gcccaggacc	ggccgcgcgc	ccgcaggcgc	cccgcgcgc	gcgcgcgc	238

<210> 62
 <211> 547
 <212> DNA
 <213> Homo sapiens

<400> 62						
ggccccgcag	ctctggccac	aggacacctc	gcagtgcgcc	ctaagtgacc	cggacacttc	60
cgaggggggc	atcaccgcct	gtgtatataa	cgthtccggt	attactctgc	tacacgtagc	120
ctthttactt	ttgggggttt	gtthttgttc	tgaactthtc	tgthaccttt	tcagggtctga	180
tgthacatgt	agggtggcgt	tatgagtgtga	gacgggcctg	ggtcttgggg	actggagggc	240
aggggtcctt	ctgcccctgg	ggtcccaggg	tgctctgcct	gctcagccag	gcctctcctg	300

ggagccactc	gcccagagac	tcagcttggc	caacttgggg	ggctgtgtcc	acccagcccg	360
cccgtcctgt	gggctgcaca	gtcaccttg	ttccctcctg	ccccggttcg	agagccgagt	420
ctgtgggcac	tctctgcctt	catgcacctg	tcctttctaa	caagtgcctt	tcaactgtaa	480
tcacaacatc	ctgactccgt	catttaataa	agaaggaaca	tcaggcatgc	taaaaaaaaa	540
aaaaaaa						547

<210> 63
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 63						
gaattccggc	aaacatgagg	cagctgccag	ccggcctggg	cagtcttgct	tgccctcggt	60
gtgaagtggg	gaggctggca	acagttttct	tcagcgccca	gg		102

<210> 64
 <211> 2017
 <212> DNA
 <213> Homo sapiens

<400> 64						
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acacacacac	acacacacac	acacacacac	acacacagcc	attcatcttg	gctggcagag	180
gggacagagt	tcaggagagg	gctgagctct	gctaggggcc	gagtccagag	gccccagcca	240
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aatectccgg	tcccacctcg	tcccgttcat	ccattctgct	ttcttgccac	acagtggccg	420
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ctgcctccca	cgtctgggaca	cagaccggcc	gcattgtctg	atggcagaag	cgtctccctt	1920
gccacggcct	gggaggggtg	ttcctgttct	cagcatccac	taatattcag	tcctgtatat	1980
tttaataaaa	taaacttgac	aaaggaaaaa	aaaaccg			2017

<210> 65
 <211> 97

<212> DNA
<213> Homo sapiens

<400> 65
gtccaggaac tctcagcag cgctccttc agctccacag ccagacgccc tcagacagca 60
aagcctaccc ccgcgcgcgc cctgcccgc cgtgcgcg 97

<210> 66
<211> 1474
<212> DNA
<213> Homo sapiens

<400> 66
aagtctaattg atcatattta tttattttata tgaaccatgt ctattaattt aattatttta 60
taatatattat attaaactcc ttatgttact taacatcttc tgtaacagaa gtcagtactc 120
ctgttgccga gaaaggagtc atacttgtga agacttttat gtcactactc taaagatttt 180
gctgttgctg ttaagtttgg aaaacagttt ttattctgtt ttataaacca gagagaaatg 240
agttttgaag tctttttact tgaatttcaa cttatattat aaggacgaaa gttaaagatgt 300
ttgaataactt aaacactatc acaagatgcc aaaatgctga aagtttttac actgtcgatg 360
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ttattaaact tgtacatata ccaaaaagaa gctgtcttgg atttaaactc gtaaaatcag 660
atgaaatttt actacaattg cttgttaaaa ttttttataa gtgatgttcc tttttcacca 720
agagtataaa ccttttttagt gtgactgtta aaacttcctt ttaaatacaa atgccaaatt 780
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cagtcttgaa gccaaattcag taggtgcatt ggaatcaagc ctggctacct gcatgctgtt 1260
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tattttctta cctgaacttt tgcaagtttt caggtaaacc tcagctcagg actgctattt 1440
agctcctctt aagaagatta aaaaaaaaaa aaaa 1474

<210> 67
<211> 99
<212> DNA
<213> Homo sapiens

<400> 67
gcgcccggcc cccacccctc gcagcacccc gcgcccgcgc cctcccagc cgggtccagc 60
cggagccatg gggccggagc cgcagtgcgc accatggag 99

<210> 68
<211> 614
<212> DNA
<213> Homo sapiens

<400> 68
tgaaccagaa ggccaagtcc gcagaagccc tgatgtgtcc tcagggagca gggaaggcct 60
gacttctgct ggcataaaga ggtgggaggg ccttcogacc acttccaggg gaacctgcc 120
tgccaggaac ctgtcctaag gaaccttcct tctgtcttga gttcccagat ggctggaag 180
ggctccagcct cgttgggaaga ggaacagcac tggggaggtc ttgtggattc tgaggccctg 240


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cccaatgaga ctctaggggc cagtggatgc cacagcccag cttggccott tccttccaga 300
tcctgggtac tgaaagcctt agggaaagctg gcctgagagg ggaagcggcc ctaagggagt 360
gtctaagaac aaaagcgacc cattcagaga ctgtccctga aacctagtag tgccccccat 420
gaggaaggaa cagcaatggg gtcagtatcc aggcctttgta cagagtgcct ttctgttttag 480
tttttacttt ttttgttttg ttttttttaa gacgaaataa agaccaggg gagaatgggt 540
gttgatatgg gaggaagtg tgggggggtcc ttctccacac ccactttgtc catttgcaaa 600
tatattttgg aaaa 614

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<210> 69
<211> 35
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 1 for amplify VEGF 5'UTR

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<400> 69
aaagtcgacg taatcgcgga ggcttgggc agccgg 35

```

```

<210> 70
<211> 30
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 2 for amplify VEGF 5'UTR

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```

<400> 70
tttgcgactg gtcagctgcg ggatcccaag 30

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<210> 71
<211> 33
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 3 for amplify VEGF 5'UTR

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<400> 71
aagtcgacgt aagagctcca gagagaagtc gag 33

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```

<210> 72
<211> 33
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Primer 4 for amplify VEGF 5'UTR

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```

<400> 72
aaaccggggc agcaaggcaa ggctccaatg cac 33

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<210> 73
<211> 39
<212> DNA
<213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence: Primer 5 for amplify VEGF 3'UTR

<400> 73
 gccgggcagg aggaaggagc ctccctcagg gtttgggga 39

<210> 74
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer 6 for amplify VEGF 3'UTR

<400> 74
 ctgcactaga gacaaagacg tgatgttaat 30

<210> 75
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Polylinker

<400> 75
 gaacaaatgt cgacgggggc ccctaggaga tctagcgctg gatcccccg gtagctcaug 60
 gaagac 66

<210> 76
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer for luciferase amplification

<400> 76
 cggtgttggg cgcgttatatt atcgagttg 30

<210> 77
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer for luciferase amplification

<400> 77
 ttggcgaaga atgaaaatag ggttggtact 30

<210> 78

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer for GAPDH amplification

 <400> 78
 ggtgaagggtc ggagtcaacg ga 22

 <210> 79
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer for GAPDH amplification

 <400> 79
 gagggatctc gctcctggaa g 21

 <210> 80
 <211> 55
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 5'UTR forward oligo

 <400> 80
 aaagtcgacg taaccgccag atttgaatcg cgggaccctg tggcagaggt ggcgg 55

 <210> 81
 <211> 54
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 5'UTR reverse oligo

 <400> 81
 aaaggatccg ggcaacgtcg gggcacccat gccgccgccg ccacctctgc caac 54

 <210> 82
 <211> 40
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 3'UTR forward oligo

 <400> 82
 aaagcggccg cggcctctgc cggagctgcc tggccccaga 40

 <210> 83
 <211> 37

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: 3'UTR reverse oligo

 <400> 83
 aaatctagac tcaggaacag ccgagatgac ctccaga 37

 <210> 84
 <211> 67
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: SL top oligonucleotide

 <400> 84
 ctagaagctt agggccgcgc atccgcgcgc ggttcgcgc gcgcggatcc gcggtagcaa 60
 gttagtc 67

 <210> 85
 <211> 68
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: SL bottom oligonucleotide

 <400> 85
 gactaagctt gctaccgcgc atccgcgcgc ggccaaccgc gcgcggatcc gcggccctaa 60
 gcttctag 68

 <210> 86
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Sense/HindIII)

 <400> 86
 caagaagctt gcgcccggcc cccacccct cg 32

 <210> 87
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Antisense/NcoI)

 <400> 87
 agcccatggt gctcactgcg gctccggccc c 31

 <210> 88

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Sense/BglIII)

 <400> 88
 agactctgaa ccagaaggcc aa 22

 <210> 89
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer (Antisense/KpnI)

 <400> 89
 ctcggtacca gttttccaaa atatatttgc aaatgg 36

 <210> 90
 <211> 58
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sense minus uORF HindIII primer

 <400> 90
 cccaagcttc gcgcccggcc cccacccct cgcagcacc cgcgccccgc gccctccc 58